

2246

Under Revision See
D295234
superseded by AS 2246-1996

AS 2246—1979
UDC 642.231.3

Australian Standard 2246—1979

LABORATORY GLASSWARE CONICAL FLASKS AND BOILING FLASKS (NARROW NECKED)



STANDARDS ASSOCIATION OF AUSTRALIA
Incorporated by Royal Charter



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THE FOLLOWING INDUSTRIAL, SCIENTIFIC AND GOVERNMENTAL organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

**Australian Medical Association
Chambers of Commerce (N.S.W., Vic.)
Chief Secretary's Department, Victoria
Commonwealth Serum Laboratories
Confederation of Australian Industry
Department of Agriculture, N.S.W.
Department of Science and the Environment
Government Chemical Laboratories, W.A.
National Measurement Laboratory
National Standards Commission
Railways of Australia Committee
Royal Australian Chemical Institute
University of Sydney
Victorian State Laboratories**

This standard, prepared by Committee CH/1, Laboratory Glassware and Related Apparatus, was approved by the Chemical Standards Board on behalf of the Council of the Standards Association of Australia on 31 January 1979, and was published on 1 April 1979.

In order to keep abreast of progress in industry, Australian standards are regularly reviewed. Suggestions for improvement to published standards, addressed to the head office of the Association, are welcomed.

This standard was issued in draft form for public review as DR 78064.

AUSTRALIAN STANDARD SPECIFICATION

**CONICAL FLASKS
AND BOILING FLASKS
(NARROW NECKED)**

AS 2246—1979

First published 1979

**PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY, N.S.W.**

ISBN 0 7262 1635 6



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PREFACE

This standard was prepared by the Association's Committee on Laboratory Glassware and Related Apparatus, under the direction of the Chemical Standards Board, at the request of the N.S.W. Government Stores Department. It is based on ISO 1773, Laboratory Glassware—Boiling Flasks (Narrow Necked), and BS 2734, Boiling Flasks (Narrow Necked)—Conical, Flat Bottom and Round Bottom.

This standard forms part of a series of standards for general laboratory glassware. Other items for which standards are being prepared include beakers, filter funnels, test tubes, condensers, separating and dropping funnels, ground glass joints, and filter flasks.

This standard may require reference to the following Australian standards:

- AS 2164 One-mark Volumetric Flasks
- AS Interchangeable Conical Glass Joints*

*In course of preparation.

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STANDARDS ASSOCIATION OF AUSTRALIA

**Australian Standard Specification
for
CONICAL FLASKS AND BOILING FLASKS
(NARROW NECKED)**

1 SCOPE. This specification sets out requirements for three types of narrow necked flasks, viz conical flasks, flat bottom boiling flasks and round bottom boiling flasks, for general laboratory use.

2 DEFINITION. For the purpose of this specification, the following definition applies:

Nominal capacity—the value which is closest to, but not greater than, the actual capacity of the flask to the base of the neck.

3 CAPACITIES OF FLASKS.

3.1 Conical Flasks. The nominal capacities of conical flasks, in millilitres, shall be:

25, 50, 100, 150, 250, 500, 1000, 2000, 3000 and 5000.

3.2 Flat Bottom and Round Bottom Boiling Flasks. The nominal capacities of flat bottom and round bottom boiling flasks, in millilitres, shall be:

50, 100, 250, 300, 500, 1000, 2000, 4000, 6000 and 10 000.

4 MATERIAL.

4.1 General. Flasks shall be made of borosilicate glass of chemical and thermal properties conforming to the limits specified in Clauses 4.2 and 4.3. They shall be as free as possible from visible defects and internal stress.

4.2 Hydrolytic Resistance. When the glass is tested in accordance with Appendix A, the amount of alkali extracted, expressed as equivalents of sodium, shall not be greater than 20 μg of glass.

4.3 Thermal Shock Resistance. The coefficient of expansion of the glass shall not exceed $5.6 \times 10^{-6} \text{ K}^{-1}$.

NOTE: If information is required by the purchaser on the thermal resistance of flasks of any particular size and wall thickness, a test should be carried out in accordance with Appendix B. The temperature differential to be applied in the test and also any necessary amendments to the test procedure on account of the size of a flask, should be the subject of agreement between the interested parties.

5 CONSTRUCTION.

5.1 General. Flasks shall conform to the appropriate general shape shown in Figs 1 and 2.